NOTES

NEW REPORTS OF *ERAGROSTIS* (POACEAE: CHLORIDOIDEAE) FROM BRAZIL—*Eragrostis* Wolf is the largest genus in the subfamily Chloridoideae (tribe Eragrostideae) with ±350 species occurring in the tropics and subtropics throughout the world (±120 in the New World and ±225 from southern Africa). There is no modern account of the entire genus and although the species appear very similar to one another, relationships within the genus are only speculative at this time. During preparation of the taxonomic revision of *Eragrostis* in Brazil, we became aware of nine species that were not reported in the literature (Allem & Valls 1987; Braga 1976; Pilger 1902; Usteri 1911). In addition, *Eragrostis paniciformis* and *E. tremula* are new records for the New World.

We consulted the literature for an indication of how common each of the nine species was in other countries. Eragrostis macrothyrsa and E. orthoclada are reported from Argentina, Bolivia, and Paraguay (Killeen 1990; Zuloaga et al.1994). Eragrostis barrelieri is mentioned as being introduced in United States, Mexico, Jamaica, Haiti, Puerto Rico, Dominican Republic, Virgin Islands, Uruguay, Argentina (Adams 1972; Beetle et al. 1991; Hitchcock 1936; Liogier & Martorell 1982), Africa (Gibbs Russell et al. 1991), Burma, India, Somalia (Cope 1995), Pakistan (Bor 1960), Canada, and Panama (Peterson & Harvey in press; Peterson in press). Eragrostis pastoensis occurs in Argentina (Zuloaga et al. 1994), Venezuela (Graterol et al. 1989), Colombia, Peru (Brako & Zarucchi 1993), Ecuador (Hitchcock 1927), Bolivia (Hitchcock 1927), Paraguay, and Uruguay (Peterson & Harvey in press; Peterson in press). Eragrostis gangetica, E. lehmanniana, E. mokensis, E. paniciformis, and E. tremula are primarily African species (Clayton 1972; Clayton et al. 1974; Gibbs Russell et al. 1991; Ibrahim & Kabuye 1987; Koechlin 1962; Zon 1992). In the New World, E. gangetica, E.mokensis, and E. lehmanniana are reported in Venezuela (Graterol et al. 1989). Eragrostis gangetica and E. lehmanniana are also found in the United States (Correll & Johnston 1970; Davidse 1994; Peterson & Harvey in press), with the latter species extending into Mexico (Lebgue & Valerio 1986) and the former found in Belize (Davidse 1994).

The following section lists the nine new records and includes information taken from the specimens.

Species Citations

- 1. Eragrostis barrelieri Daveau, J. Bot. (Morot.) 8:289. 1894. BRAZIL. No specific location,1892, A.F.M.Glaziou 20119 (US 55412, 1162998).
 - 2. Eragrostis gangetica (Roxb.) Steud., Syn. Pl. Glumac. 1:266. 1854. BRAZIL. Paraiba:

Campina Grande, 24 Jun 1935, B.Pickel 3832 (NY,US). Pernambuco (3 km to Jurema-Fazenda Boca da Mata), 780 m, 26 Jul 1966, E.Tenorio 66-138 (NY,US).

- 3. Eragrostis lehmanniana Nees, Fl. Afr. Austral. Ill. 402. 1841. BRAZIL. Ceara: Fortaleza (Mostruario vivo do Instituto de Zootecnia), collector unknown (SP 165964).
- 4. Eragrostis macrothyrsa Hack., Repert. Spec. Nov. Regni. Veg. 8:47. 1910. BRA-ZIL. Mato Grosso: Miranda (a 6 km da sede da Fazenda Bodoquena, no Rumo ESE—Serra da Bodoquena), 12 Jun 1973, T.S. Silva 100.107 (SP,US), T.S. Silva 101 (SP).
- 5. Eragrostis mokensis Pilg., Bot. Jahrb. Syst. 51:419–420. 1914. BRAZIL. Minas Gerais: Ouro Preto (Vila Rica), 100 m, 7 Apr 1925, A.Chase 9358 (NY,SP,US).
- 6. Eragrostis orthoclada Hack., Bull. Herb. Boissier ser.2, 4(3):281. 1904. BRAZIL. Mato Grosso do Sul: Anastacio, 22.Apr 1985, Valls et al. 8657 (CEN); Aquidauana, 5 Apr 1986, J.F.M. Valls et al. 9891 (CEN); Bela Vista, 18 Jun 1946, J.Swallen 9469 (US), 21 Apr 1984; J.F.M. Valls et al. 7654 (CEN); Corumba (on Rio Paraguai), 200–250m.,31 Apr 1930, A.Chase 11124 (US). Miranda, 11 Jun 1973, Silva 85B (SP).
- 7. Eragrostis paniciformis (A.Br.) Steud., Syn. Pl. Glum. 1:268. 1854. BRAZIL. Sao Paulo: Caraguatatuba (3 km ao sul do Rio Mococa), 50 m, 27 May 1983, *J.F.M. Valls* 7385, 7386 (CEN, ICN); 28 May 1986, *J.F.M. Valls* 10270 (CEN, ICN). Sao Luiz do Paratinga, 940 m, 29 May 1986, *J.F.M. Valls et al.* 10280 (CEN, ICN).
- 8. Eragrostis pastoensis (Kunth) Trin., Mem. Imp. Acad. Sci. Saint-Petersbourg, Ser. 6, Sci. Math., Seconde Pt. Sci. Nat. 2 (1):71. 1836. BRAZIL. Maranhao: Grajau to Porto Franco, 8–13 Mar 1934, J.Swallen 3870 (US). Mato Grosso: Caceres, 25 Oct 1985, J.F.M. Valls 9381 (CEN); Campo Grande, E.F.Nienstedt 149 (US); Sao Paulo: Perus, 25 Mar 1907, A. Usteri s.n. (SP 10129).
- 9. Eragrostis tremula Steud., Syn. Pl. Glum. 1:269. 1854. BRAZIL. No specific location, 21 Nov 1952, Camargo 6 (US 2205753).

ACKNOWLEDGMENTS

The first author would like to thank the directors of Brazilian herbaria for the loan of specimens and to CAPES for financial support. Appreciation is extended to numerous people in the Department of Botany, Smithsonian Institution and especially to Marjorie Knowles for technical assistance.

—Sonja De Castro Boechat, Departamento de Botanica/UFRGS, Av. Paulo Gama, 40, 90049.060, Porto Alegre, RS, Brasil, and Paul M. Peterson, Department of Botany, National Museum of Natural History, Smithsonian Institution, Washington, DC 20560, U.S.A.

REFERENCES

- Adams C.D. 1972. The flowering plants of Jamaica. University of the West Indies, Mona Jamaica.
- Allem, A.C. and J.F.M. Valls. 1987. Recursos forrageiros nativos do Pantanal Mato-Grossense. Empresa Brasileira de Pesquisa Agropecuária Centro Nacional de Recursos Genéticos. Brasília, D.F.
- Beetle, A.A., E. Manrique Forceck, J.A. Miranda Sanchez, V. Jarmillo Luque, A. Chimal Hernandez, and A.M. Rodreguez Rodriguez. 1991. Gramineas de Mexico. Tomo III. Secretaria de Agricultura y Recursos Hidráulicos, Mexico. Pp. 50–96.

Notes 771

Bor, N.L. 1960. The grasses of Burma, Ceylon, India, and Pakistan. Pergamon Press, New York. Pp. 495–516.

Braga, R. 1976. Plantas do nordeste especialmente do Ceará. 3 ed. Mossoró, Escola Superior de Agricultura.

Brako, L. and J.L. Zaruchi. 1993. Catalogo de las angiospermas y gymnospermas del Peru. Monogr. Syst. Bot. Missouri Bot. Gard. 45:945–947.

CLAYTON, W.D. 1972. Gramineae. In: J. Hutchinson, J.M. Dalziel, and F.M. Hepper, Eds., Flora of West Tropical Africa. Crown Agents for Oversea Governments and Administrations. Pp. 383–392.

CLAYTON, W.D., M. PHYLLIPS, and S.A. RENVOIZE. 1974. Gramineae. In: R.M. Polhill, ed. Flora of Tropical East Africa. London, Crown Agents. pt 2. Pp. 188–244.

COPE, T.A. 1995. Some new Somali grasses II. Kew Bull. 50:109-117.

CORRELL, D.S. and M.C. JOHNSTON. 1970. Manual of the vascular plants of Texas. Texas Research Foundation, Renner, Texas. Pp. 204–212.

Davidse, G. 1994. *Eragrostis* Wolf. In: Davidse, G., M. Sousa, and A.O. Chater, eds. Flora Mesoamericana. Universidad Nacional Autónoma de México, Missouri Botanical Garden, and The Natural History Museum-London, Mexico. vol. 6. Pp. 263–272.

GIBBS RUSSELL, G.E., L. WATSON, M. KOEKEMOER, L. SMOOK, N.P. BARKER, H.M. ANDERSON, and M.J. Dallwitz. 1991. Grasses of Southern Africa. In: O.A. Leistner, ed. Mem. Bot. Surv. S. Africa 58:139–163.

Graterol, A., P. Torrecilla, and B.K. Trujillo. 1989. Comentarios criticossobre el genero *Eragrostis* Wolf en Venezuela y clave para la identificación de sus especies. Ernstia 51:16–28.

HITCHCOCK, A.S. 1927. The grasses of Ecuador, Peru, and Bolivia. Contr. U.S. Natl. Herb. 24:335–344.

HITCHCOCK, A.S. 1936. Manual of the grasses of the West Indies. U.S.D.A. Misc. Publ. 243:1–439.

IBRAHIM, K.M and C. KABUYE. 1987. An illustrated manual of the grasses of Kenya. F.A.O., United Nations, Rome. Pp. 146–163.

Killen, T. 1990. The grasses of Chiquitania, Santa Cruz, Bolivia. Ann. Missouri Bot. Gard. 77:125–201.

Koechlin, J. 1962. Famille des Graminees. In: A. Aubreville, Flore du Gabon. Museum National d'Histoire Naturelle, Paris. Pp. 221–231.

Lebgue, T. and A. Valerio. 1986. Manual para identificar las Gramíneas de Chihuahua. Chihuahua, Mexico. Pp. 95–104.

Liogier, A.H. and L.F. Martorell. 1982. Flora of Puerto Rico and adjacent islands: A systematic synopsis. Editorial de la Universidad de Puerto Rico, Puerto Rico.

Peterson, P.M. and L.H. Harvey (In Press a). *Eragrostis* Wolf. In: M.E. Barkworth, ed. Manual of North American grasses. 83 manuscript pp.

Peterson, P.M. (In Press.) Eragrostis Wolf. In: S. Laegaard, ed. Grasses of Ecuador. 78 manuscript pp.

PILGER, R. 1902. Beitrag zur flora von Mattogrosso. Bot. Jahrb. Syst. 30:128-141.

Usteri, A. 1911. Flora der Umgebung der Stadt São Paulo. Weimar, Jena.

Zon, van der A.P.M. 1992. Graminees du Cameroun v.II. Wageningen Agricultural University, Cameroon. Pp. 11–137.

Zuloaga, F.O., E.G. Nicora, Z.E. Rugolo de Agrasar, O. Morrone, J. Pensiero, and A.M. Cialdella. 1994. Catalogo de la familia Poaceae en la Republica Argentina. Monogr. Syst. Bot. Missouri Bot. Gard. 47:62–66.